IN THE CLAIMS:

1. (Withdrawn) Compounds of formula I:

wherein

 $R^1=H, \ or \ C_1\text{-}C_{20} \ alkyl, \ cycloalkyl, \ alkenyl, \ aryl, \ arylalkyl, \ or \ alkylaryl, \ =CHR^3, \ -C(O)OR^3, \ -C(O)R^3, \ -CH_2C(O)OR^3, \ -CH_2C(O)NHR^3, \ where \ R^3 \ is \ H \ or \ C_1\text{-}C_{10} \ alkyl, \ cycloalkyl, \ or \ alkenyl;$

 $R^2 = C_1 - C_{20}$ alkyl, cycloalkyl, alkenyl, aryl, arylalkyl, or alkylaryl;

 $X^1 = NHR^4, where \, R^4 \, is \, H, \, C_1 - C_{20} \, alkyl, \, cycloalkyl, \, alkenyl, \, aryl, \, arylalkyl, \, or \, alkylaryl, \\ the \, R^4 \, group \, optionally \, containing \, a \, carbonyl \, group, \, a \, carboxyl \, group, \, a \, carboxyamide \, group, \\ an \, alcohol \, group, \, or \, an \, ether \, group, \, the \, R^4 \, group \, further \, optionally \, containing \, one \, or \, more \\ halogen \, atoms.$

- 2. (Withdrawn) The compounds of claim 1, wherein R^1 is H, or C_1 - C_{10} alkyl, cycloalkyl, alkenyl, aryl, arylalkyl, or alkylaryl, or = CH_2 .
- 3. (Withdrawn) The compounds of claim 2, wherein R¹ is -CH₃ or =CH₂.

 (Withdrawn) The compounds of claim 3, wherein the compound is selected from the group consisting of:

H ₃ C(H ₂ C),	H ₂ C(H ₂ C) ₂	H ₀ C(H ₂ C) ₃
н ₅ С(H ₂ C)3 ² Н он	H ₃ C(H ₂ C) ₃ ····································	(a) CH ₃ H ₃ C(H ₂ C), and
H ₃ C(H ₂ C)y		

- (Withdrawn) The compounds of claim 1, wherein R⁴ is -CH₂C(O)OR⁵ or
 -CH₂C(O)NHR⁵, where R⁵ is H, C₁-C₁₀ alkyl, cycloalkyl, alkenyl, aryl, arylalkyl, or alkylaryl.
- (Withdrawn) The compounds of claim 1, wherein the compound is selected from the group consisting of:

7. (Withdrawn) Compounds of formula II:

11

wherein

 $R^6=H, or\ C_1-C_{20}\ alkyl,\ cycloalkyl,\ alkenyl,\ aryl,\ arylalkyl,\ or\ alkylaryl,\ -C(O)OR^8,\ -C(O)R^8,\ -CH_2C(O)OR^8,\ -CH_2C(O)NHR^8,\ where\ R^8\ is\ H\ or\ C_1-C_{10}\ alkyl,\ cycloalkyl,\ or\ alkenyl;$

 $R^7 = C_1 - C_{20}$ alkyl, cycloalkyl, alkenyl, aryl, arylalkyl, or alkylaryl;

 $X^2 = NHR^9, where \, R^9 \, is \, H, \, C_1 - C_{20} \, alkyl, \, cycloalkyl, \, alkenyl, \, aryl, \, arylalkyl, \, or \, alkylaryl, \\ the \, R^9 \, group \, optionally \, containing \, a \, carbonyl \, group, \, a \, carboxyl \, group, \, a \, carboxyamide \, group, \\ an \, alcohol \, group, \, or \, an \, ether \, group, \, the \, R^9 \, group \, further \, optionally \, containing \, one \, or \, more \\ halogen \, atoms;$

with the proviso that when R⁶ is-CH₃, and R⁷ is n-C₁₃H₂₇, X² is not -NHC₂H₅.

- 8. (Withdrawn) The compounds of claim 7, wherein R^6 is C_1 - C_{10} alkyl, cycloalkyl, alkenyl, aryl, arylalkyl, or alkylaryl.
- (Withdrawn) The compounds of claim 8, wherein R⁶ is -CH₃.
- $\label{eq:compounds} 10. \qquad \text{(Withdrawn)} \quad \text{The compounds of claim 7, wherein R^9 is-CH$_2$C(O)OR10 or-CH$_2$C(O)NHR10, where R^{10} is H, C_1$-$C$_{10}$ alkyl, cycloalkyl, alkenyl, aryl, arylalkyl, or alkylaryl.$
- 11. (Withdrawn) Compounds of formula IV:

IV

wherein

 $R^{16}=H,\ or\ C_{1}\text{-}C_{20}\ alkyl,\ cycloalkyl,\ alkenyl,\ aryl,\ arylalkyl,\ or\ alkylaryl,\text{-}C(O)OR^{18},$ $\text{-}C(O)R^{18},\ \text{-}CH_{2}C(O)OR^{18},\ \text{-}CH_{2}C(O)NHR^{18},\ where\ R^{18}\ is\ H\ or\ C_{1}\text{-}C_{10}\ alkyl,\ cycloalkyl,\ or\ alkenyl;}$

 $R^{17} = C_1 - C_{20}$ alkyl, cycloalkyl, alkenyl, aryl, arylalkyl, or alkylaryl;

 $X^4 = OR^{19}$, where R^{19} is C_{1} – C_{20} alkyl, cycloalkyl, alkenyl, aryl, arylalkyl, or alkylaryl, the R^{19} group optionally containing a carbonyl group, a carboxyl group, a carboxyamide group, an alcohol group, or an ether group, the R^{19} group further optionally containing one or more halogen atoms;

with the proviso that when R^{16} is -CH₃ and R^{19} is -CH₃, then R^{17} is not substituted or unsubstituted phenyl, -nC₃H₇, -nC₅H₁₁, -nC₁₃H₂₇, and with the further proviso that when R^{16} is H and R^{19} is -CH₃, then R^{17} is not substituted or unsubstituted phenyl or -CH₃, and when R^{16} is H and R^{19} is -CH₂CH₃, then R^{17} is not -iC₄H₇, or substituted or unsubstituted phenyl.

- 12. (Withdrawn) The compounds of claim 11, wherein R^{16} is C_1 - C_{10} alkyl, cycloalkyl, alkenyl, arylalkyl, or alkylaryl.
- 13. (Withdrawn) The compounds of claim 12, wherein R¹⁶ is -CH₃.
- 14. (Withdrawn) The compounds of claim 11, wherein R^{19} is $-CH_2C(O)OR^{20}$ or $-CH_2C(O)NHR^{20}$, where R^{20} is C_1-C_{20} alkyl, cycloalkyl, alkenyl, aryl, arylalkyl, or alkylaryl.
- 15. (Currently Amended) Compounds of formula V:



wherein

$$\begin{split} R^{2l} = & C_{2l} \cdot C_{2l0} \cdot alkyl, \text{ cycloalkyl, alkenyl, aryl, arylalkyl, or alkylaryl, = CHR}^{23}, -C(O)OR^{23} \\ -C(O)R^{23}, -CH_2C(O)OR^{23}, -CH_2C(O)NHR^{23}, \text{ where } R^{23} \text{ is H or } C_{l^{-}}C_{l0} \text{ alkyl, cycloalkyl, or alkenyl, except when } R^{21} \text{ is = CHR}^{23}, R^{23} \text{ is not H;} \end{split}$$

 $R^{22} = C_2 - C_{20}$ alkyl, cycloalkyl, alkenyl, arylalkyl, or alkylaryl;

with the proviso that when R^{21} is -COOH, then R^{22} is not $\underline{-CH_{3a}}$ - nC_5H_{11} , or $C_{13}H_{27}$ and with the further proviso that when R^{21} is -CH₂COOH, then R^{22} is not -CH₂CH₃, or $-iC_3H_{11}$.

- (Currently Amended) The compounds of claim 1 5, wherein R²¹ is C₂-C₂₀-alkyl, cycloalkyl, alkenyl, aryl, arylalkyl, or alkylaryl.
- 17. (Cancelled)
- 18. (Withdrawn) Compounds of formula VI:

wherein:

$$R^{24} = C_2 - C_{20}$$
 alkyl, cycloalkyl, alkenyl, aryl, arylalkyl, or alkylaryl, $-C(O)OR^{26}$,

- $C(O)R^{26}$, - $CH_2C(O)OR^{26}$, - $CH_2C(O)NHR^{26}$, where R^{26} is H or C_1 - C_{10} alkyl, cycloalkyl, or alkenyl;

$$R^{25} = C_1 - C_{20}$$
 alkyl, cycloalkyl, alkenyl, aryl, arylalkyl, or alkylaryl;

with the proviso that when R^{24} is -COOH, then R^{25} is not -CH₃, -nC₅H₁₁, or C₁₃H₂₇, and with the further proviso that when R^{24} is -CH₂COOH, then R^{25} is not-CH₃-CH₂CH₃, or – iC₅H₁₁.

- 19. (Withdrawn) The compounds of claim 18, wherein R^{2i} is C_2 - C_{10} alkyl, cycloalkyl, alkenyl, aryl, arylalkyl, or alkylaryl.
- 20. (Currently Amended) Compounds of formula VII:

wherein

$$R^{27} = C_{42}$$
 alkyl, C_{14} alkyl, C_{16} - C_{20} alkyl.

21 - 22. (Cancelled)

 (Withdrawn) A pharmaceutical composition comprising a pharmaceutical diluent and a compound of formula IX:

$$\begin{split} R^{20} = H, \text{ or } C_{l^*}C_{20} \text{ alkyl, cycloalkyl, alkenyl, aryl, arylalkyl, or alkylaryl, =CHR^{31},\\ -C(O)OR^{31}, -C(O)OR^{31}, -CH_2C(O)OR^{31}, -CH_2C(O)NHR^{31}, \text{ where } R^{31} \text{ is } H \text{ or } C_{l^*}C_{l0} \text{ alkyl,}\\ \text{cycloalkyl, or alkenyl;} \end{split}$$

R³⁰ = C₁-C₂₀ alkyl, cycloalkyl, alkenyl, aryl, arylalkyl, or alkylaryl;

 $X^5 = -OR^{32}$, or -NHR³², where R^{32} is H, C_PC_{20} alkyl, cycloalkyl, alkenyl, aryl, arylalkyl, or alkylaryl, the R^{32} group optionally containing a carbonyl group, a carboxyl group, a carboxyamide group, an alcohol group, or an ether group, the R^{32} group further optionally containing one or more halogen atoms;

with the proviso that when R^{29} is =CH₂, then X^5 is not OH.

- (Withdrawn) The pharmaceutical compositions of claim 23, wherein R²⁹ is C₁-C₁₀ alkyl, cycloalkyl, alkenyl, aryl, arylalkyl, or alkylaryl, or =CH₂.
- 25. (Withdrawn) The pharmaceutical compositions of claim 24, wherein R²⁹ is -CH₃ or =CH₂.

- 26. (Withdrawn) The pharmaceutical compositions of claim 23, wherein R^{32} is ${}^{-}$ CH₂C(O)OR³³ or ${}^{-}$ CH₂C(O)NHR³⁵, where R^{33} is $C_{\Gamma}C_{l0}$ alkyl, cycloalkyl, alkenyl, aryl, arylalkyl, or alkylaryl.
- 27. (Withdrawn) The pharmaceutical compositions of claim 23, where $R^{2\theta}$ is $-C_6H_{13}$ or $-C_8H_{17}$.
- 28. (Withdrawn) The pharmaceutical compositions of claim 23, wherein the compound is selected from the group consisting of:

- (Withdrawn) A pharmaceutical composition comprising a pharmaceutical diluent and a compound according to claim 1.
- (Withdrawn) A pharmaceutical composition comprising a pharmaceutical diluent and a compound according to claim 7.
- (Withdrawn) A pharmaceutical composition comprising a pharmaceutical diluent and a compound according to claim 11.

- (Original) A pharmaceutical composition comprising a pharmaceutical diluent and a compound according to claim 15.
- (Withdrawn) A pharmaceutical composition comprising a pharmaceutical diluent and a compound according to claim 18.
- (Original) A pharmaceutical composition comprising a pharmaceutical diluent and a compound according to claim 20.
- (Withdrawn) A pharmaceutical composition comprising a pharmaceutical diluent and a compound according to claim 22.
- (Withdrawn) A pharmaceutical composition comprising a pharmaceutical diluent and a compound according to Formula III:

Ш

wherein

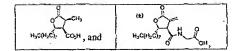
 $R^{11} = H, \ or \ C_1 - C_{20} \ alkyl, \ cycloalkyl, \ alkenyl, \ aryl, \ arylalkyl, \ or \ alkylaryl, = CHR^{13},$

-C(O)OR¹³, -C(O)R¹³, -CH₂C(O)OR¹³, -CH₂C(O)NHR¹³, where R^{13} is H or C_1 - C_{10} alkyl, cycloalkyl, or alkenyl;

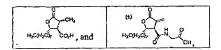
 $R^{12} = C_1 \hbox{-} C_{20} \ alkyl, \ cycloalkyl, \ alkenyl, \ aryl, \ arylalkyl, \ or \ alkylaryl \ ;$

 $X^3 = \mathsf{OR}^{14}, \text{ where } R^{14} \text{ is } C_1\text{-}C_{20} \text{ alkyl, cycloalkyl, alkenyl, aryl, arylalkyl, or alkylaryl, the} \\ R^{14} \text{ group optionally containing a carbonyl group, a carboxyl group, a carboxyamide group, an} \\ \text{alcohol group, or an ether group, the } R^{14} \text{ group further optionally containing one or more halogen} \\ \text{atoms.}$

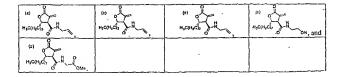
- (Withdrawn) The pharmaceutical formulation of claim 36, wherein R¹¹ is C₁-C₁₀ alkyl, cycloalkyl, alkenyl, aryl, arylalkyl, or alkylaryl, or =CH₂.
- 38. (Withdrawn) The pharmaceutical formulation of claim 37, wherein R¹¹ is -CH₃ or =CH₂.
- 39. (Withdrawn) The pharmaceutical formulation of claim 36, wherein R^H is -CH₂C(O)OR¹⁵ or CH₂C(O)NHR¹⁵, where R¹⁵ is C₁-C₁₀ alkyl, cycloalkyl, alkenyl, aryl, arylalkyl, or alkylaryl.
- 40. (Withdrawn) A method of inducing weight loss in an animal or human subject comprising administering an effective amount of a pharmaceutical composition according to claim 23 to said subject.
- 41. (Withdrawn) The method of claim 40, wherein the subject is a human.
- 42. (Withdrawn) The method of claim 40, wherein the subject is an animal.
- (Withdrawn) The method of claim 41, wherein the pharmaceutical composition comprises a compound selected from the group consisting of



44. (Withdrawn) The method of claim 42, wherein the pharmaceutical composition comprises a compound selected from the group consisting of:



- 45. (Withdrawn) A method of inhibiting growth of cancer cells in an animal or human subject, comprising administering an effective amount of a pharmaceutical composition according to claim 23 to said subject.
- 46. (Withdrawn) The method of claim 45, wherein the subject is a human.
- 47. (Withdrawn) The method of claim 45, wherein the subject is an animal.
- 48. (Withdrawn) The method of claim 46, wherein the pharmaceutical composition comprises a compound selected from the group consisting of



49. (Withdrawn) The method of claim 47, wherein the pharmaceutical composition comprises a compound selected from the group consisting of:

(a) 0 H	Macinacija Jili	Hacotzelin All	(±) 0 H ₃ C(H ₂ C), N OH, and
(e) 01 H ₃ C(H ₂ C), N OMo.			

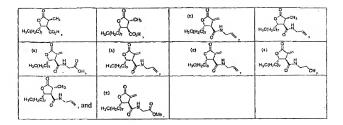
- 50. (Withdrawn) A method of stimulating the activity of CPT-1 in an animal or human subject comprising administering an effective amount of a pharmaceutical composition according to claim 23 to said subject.
- 51. (Withdrawn) The method of claim 50, wherein the subject is a human.
- 52. (Withdrawn) The method of claim 50, wherein the subject is an animal.
- 53. (Withdrawn) The method of claim 51, wherein the compound is:

54. (Withdrawn) The method of claim 52, wherein the compound is:

- 55. (Withdrawn) A method of inhibiting the activity of neuropeptide-Y in an animal or human subject comprising administering an effective amount of a pharmaceutical composition according to claim 23 to said subject.
- 56. (Withdrawn) The method of claim 55, wherein the subject is a human.
- 57. (Withdrawn) The method of claim 55, wherein the subject is an animal.
- 58. (Withdrawn) A method of inhibiting fatty acid synthase activity in an animal or human subject comprising administering an effective amount of a pharmaceutical composition according to claim 23 to said subject.
- 59. (Withdrawn) The method of claim 58, wherein the subject is a human.
- 60. (Withdrawn) The method of claim 58, wherein the subject is an animal.
- 61. (Withdrawn) The method of claim 59, wherein the compound is selected from the group consisting of:

HyCgHzCh CO.H	HICHER COH,	(a) CH ₂	H=C(H,C);
H ₂ C(H ₂ C) ₂ H OH,	(a) 0 H3CH4CH3 N	rancis H	(a) OH,
H ₃ C(H ₂ C) ₇ -CH ₃ , and	H ₂ C(H ₂ O ₃)		

 (Withdrawn) The method of claim 60, wherein the compound is selected from the group consisting of:



63. (Withdrawn) A method of inhibiting growth of invasive microbial cells in an animal or human subject comprising the administration of an effective amount of a pharmaceutical composition according to claim 23 to said subject.

64 - 65. (Cancelled)

66. (Withdrawn) The method of claim 64, wherein the compound is selected from the group consisting of:

67. (Withdrawn) The method of claim 65, wherein the compound is selected from the group consisting of:

- 68. (Not Entered)
- 69. (Currently Amended) Compounds according to claim 15, wherein

R²¹ = cycloalkyl, alkenyl, aryl, arylalkyl, or alkylaryl, =CHR²³, -C(O)OR²³ -C(O)R²³,

-CH₂C(O)OR²³, -CH₂C(O)NHR²³, where R^{23} is H or C_I-C₁₀ alkyl, cycloalkyl, or alkenyl, except when R^{21} is =CHR²³, R^{23} is not H:

 $R^{22} = C_1 - C_{20}$ alkyl, cycloalkyl, alkenyl, arylalkyl, or alkylaryl;

with the proviso that when R^{21} is -COOH, then R^{22} is not $\underline{-CH_{3}}$, $-C_{13}H_{27}$ or $\underline{C_{13}H_{27}}$ and with the further proviso that when R^{21} is -CH₂COOH, then R^{22} is not -CH₂CH₃, or $-iC_3H_{11}$.

- (Previously Presented) A pharmaceutical composition comprising a pharmaceutical diluent and a compound according to claim 69.
- 71. (Previously Presented) Compounds of formula X:

wherein

R⁴² = C₂-C₂₀ alkyl, cycloalkyl, alkenyl, aryl, arylalkyl, or alkylaryl.

- 72. (Previously Presented) A pharmaceutical composition comprising a pharmaceutical diluent and a compound according to claim 71.
- 73. (New) A method of inhibiting the activity of fatty acid synthase in a cell comprising administering to the cell an effective amount of a pharmaceutical composition comprising a pharmaceutical diluent and one or more compounds of formula V:

$$\mathbb{R}^{22}$$
 \mathbb{R}^{21} \mathbb{R}^{21} \mathbb{R}^{21} \mathbb{R}^{21}

wherein

 $R^{21} = C_2 - C_{20}$ alkyl, cycloalkyl, alkenyl, aryl, arylalkyl, or alkylaryl, =CHR²³, -C(O)OR²³

-C(O)R 23 , -CH₂C(O)OR 23 , -CH₂C(O)NHR 23 , where R^{23} is H or C_I-C_{I0} alkyl, cycloalkyl, or alkenyl; and

 $R^{22} = C_2 - C_{20}$ alkyl, cycloalkyl, alkenyl, aryl, arylalkyl, or alkylaryl.